CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 298589
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

The iron level is abnormal. The lead level is abnormal. All other component wear rates are normal.

CONTAMINATION

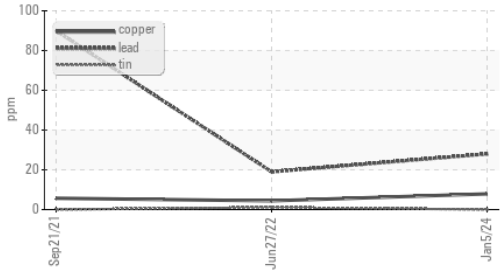
There is no indication of any contamination in the oil.

FLUID CONDITION

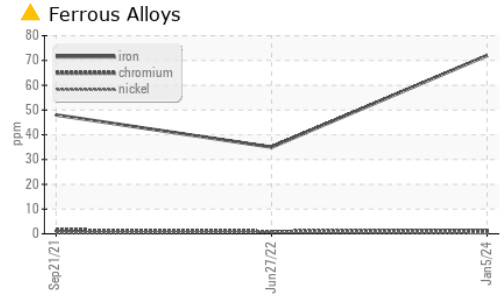
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199198	JR0132867	JR0101358
Sample Date		Client Info		05 Jan 2024	27 Jun 2022	21 Sep 2021
Machine Age	hrs	Client Info		5951	4398	3777
Oil Age	hrs	Client Info		1553	621	0
Filter Age	hrs	Client Info		1553	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	▲ 72	35	48
Chromium	ppm	ASTM D5185m	>11	1	<1	2
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	17	8	11
Lead	ppm	ASTM D5185m	>26	▲ 28	19	▲ 90
Copper	ppm	ASTM D5185m	>26	8	4	6
Tin	ppm	ASTM D5185m	>4	0	1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	12	8	8
Potassium	ppm	ASTM D5185m	>20	2	2	3
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.6	0.9	1.2
Nitration	Abs/cm	*ASTM D7624	>20	13.5	10.1	12.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.8	27.0	29.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>31	3	2	3
Boron	ppm	ASTM D5185m		34	95	59
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		206	211	213
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		833	751	768
Calcium	ppm	ASTM D5185m		1624	1607	1738
Phosphorus	ppm	ASTM D5185m		942	881	872
Zinc	ppm	ASTM D5185m		1242	1157	1068
Sulfur	ppm	ASTM D5185m		2896	3509	2334
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.9	24.0	24.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.9	7.1	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	14.9	13.7	15.2

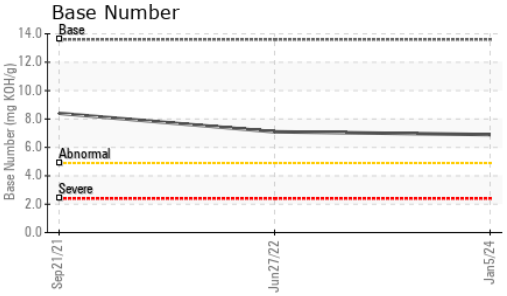
Non-ferrous Metals



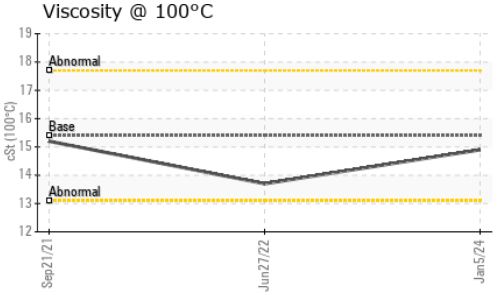
Ferrous Alloys



Base Number



Viscosity @ 100°C



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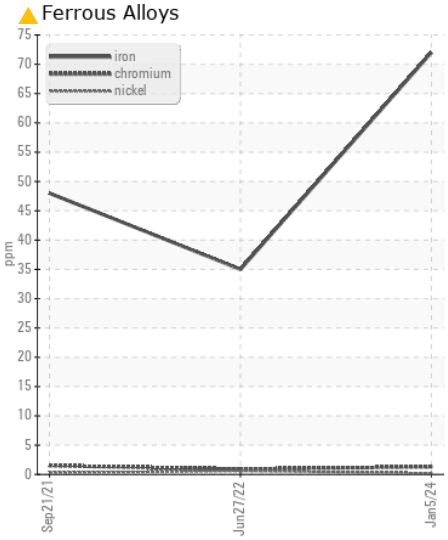

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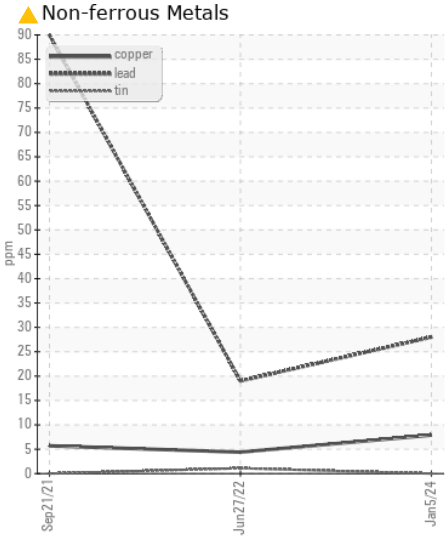
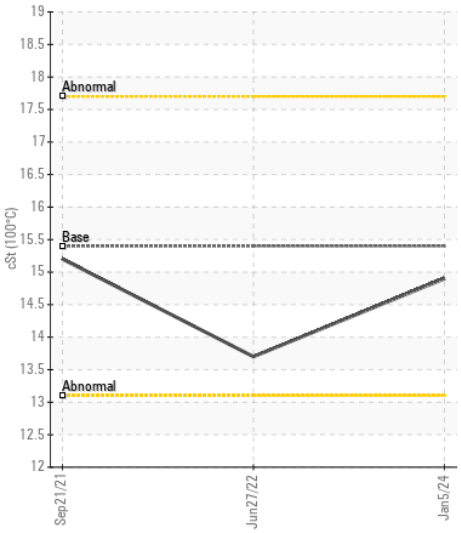


Viscosity @ 100°C



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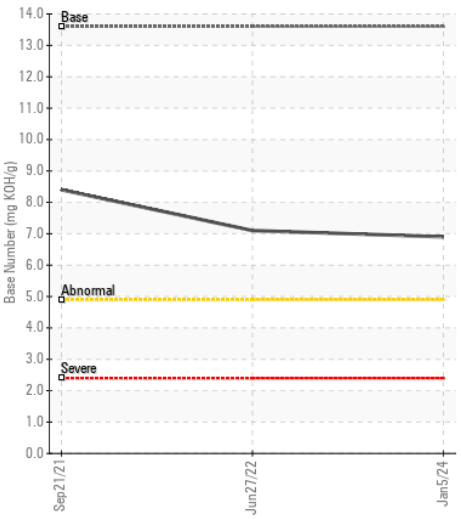

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: JR0199198	**Recieved**	: 09 Jan 2024
Lab Number	: 06055728	**Diagnosed**	: 10 Jan 2024
Unique Number	: 10821677	**Diagnostician**	: Jonathan Hester
Test Package	: CONST (Additional Tests: TBN)		

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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